

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year) **See form PCT/ISA/210**

Applicant's or agent's file reference

2004P01972WO

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/EP2005/050809

International filing date (day/month/year)

25.02.2005

Priority date (day/month/year)

22.03.2004

International Patent Classification (IPC) or both national classification and IPC

H02K11/04

Applicant

SIEMENS AKTIENGESELLSCHAFT

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2005/050809

Box No. 1

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
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International application No.

PCT/EP2005/050809

Box No. II

Priority

1. ☐ The following document has not yet been furnished:

☐ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43bis.1 and 64.1) is the claimed priority date.

**WRITTEN OPINION OF THE
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International application No.

PCT/EP2005/050809

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	4-7, 9, 10	YES
	Claims	1-3, 8	NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO
2. Citations and explanations:			
<p>V.1 Reference is made to the following documents:</p> <p style="margin-left: 40px;">D1: US 2004027016</p> <p style="margin-left: 40px;">D2: US 4431931</p> <p style="margin-left: 40px;">D3: DE 10118052</p> <p style="margin-left: 40px;">D4: DE 19957132 C1</p>			
<p>V.2 The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel within the meaning of PCT Article 33(2).</p> <p style="margin-left: 40px;">Document D1 (see in particular figure 11 and paragraphs 81 - 87 of the description), which is regarded as the closest prior art, discloses (the references between parentheses relate to said document):</p> <p style="margin-left: 40px;">An electric motor comprising a rotating hollow shaft (13) which is connected to a rotor (4) of the electric motor, a converter (67) and an associated electronic drive system (67) being integrated at least partially in a cavity within the hollow shaft (see figure 11: the cavity is located in the region</p>			

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

of "carrier" 118, which, when viewed in the radial direction, is positioned within the "inner wall" 13 (corresponding to feature "hollow shaft")) for the purpose of supplying the motor with electrical energy, the converter (67) and the electronic drive system (67) being fixed in position ("carrier" 118 is screwed to "fan holder" 115).

V.3 Dependent claims 2-10 do not contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step. Reasoning:

- claim 2: see D2, column 4, lines 13-19
- claim 3: see D1, figure 11, "carrier" 118 acts as a mounting plate
- claim 4: see D3, figure 1.1: transmitter: "recording element" 23, hollow shaft: "rotor support" 12
- claim 5: see D3, figure 1.1: signal track: "sensor ring" 26
- claim 6: see D3, column 4, lines 38-41
- claim 7: see D3, figure 1.2: "recording element" 23. Since "sensor elements" 24, 25 are illustrated separately, recording element 23 does not comprise the sensor function. It is clear to a person skilled in the art that the function of the recording element 23 is that of the evaluation electronics.
- claim 8: see D2, column 3, lines 49-56
- claim 9: see D4, column 5, lines 30-48
- claim 10: the use of an electric motor as per claim 1 in a machine tool or production machine

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
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cannot be regarded as inventive since it is well known to a person skilled in the art that only very limited space is available for the machine in the case of such machines. It can therefore only be regarded as being within the scope of conventional practice in the art if a technology which reduces the space requirement of an electric motor is used at locations where the space available for said electric motor is limited.

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Applicant SIEMENS AKTIENGESELLSCHAFT			

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